DEC 6 1995

Before The

FEDERAL COMMUNICATIONS COMMISSION

Washington, D.C. 20554

ORIGINAL

In The Matter of	)	
	)	
Amendment of Part 90 of the	)	**PR Docket No. 93-144**
Commission's Rules Concerning	)	
Future Development of SMR Systems	)	**RM-8117, RM-8030**
in the 800 MHz Frequency Band	)	
and	)	
Implementation of Section 309(j)	)	
of the Communications Act	)	**PP Docket No. 93-253**
Competitive Bidding	)	
800 MHz SMR	)	

To: The Commission

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SUPPLEMENTAL COMMENTS
OF
DUKE POWER COMPANY

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Dated: December 6, 1995

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SUMMARY

The proposed relocation of 800 MHz systems from current spectrum assignments directly threatens the operation of Duke's lifeline telecommunications facilities. Duke now operates a major wide-area system which serves all the 22,000 square mile Duke power service area, including Piedmont and Western North Carolina and Northern South Carolina. Uninterrupted operation of this system is absolutely critical because it provides the exclusive telecommunications link for maintenance of Duke's power delivery system, as well as power restoration, emergency response and other critical service activities.

Because Duke's system is a non-commercial purely internal communications system which provides services critical to the public, Duke believes that its system should not be subject to any mandatory relocation plan and that only a voluntary relocation approach should apply. However, should the Commission feel compelled to impose mandatory relocation procedures upon the Duke system, the Commission must ensure that adequate replacement spectrum is made availaible to allow Duke's critical operations to continue uninterrupted. Duke is especially concerned on this point as the FCC has indicated that replacement spectrum may be found in the "lower 80 SMR" and/or "general category" channels, while Duke's review of the FCC database reveals no spectrum availabilities in the Duke service area from these allocations.

Replacement spectrum must be fully comparable with that now employed in the Duke system. It must have propagation characteristics equivalent to Duke's present spectrum assignments, it must continue to be exclusively assigned, and it must be readily compatible with

the Duke multiple-site frequency reuse plan. On a related point, the Commission must ensure that a "seamless handoff" to replacement spectrum is possible, and that the potentially multiple new "wide area" licensees in Duke's service area will act in concert with Duke to minimize the transition problems. To this end, Duke asserts that a two-year voluntary negotiation period coupled with a one year mandatory transition period would present the minimal workable option.

Further, all costs of migration activity must be fully compensated by the new wide area licensee, including intangible costs. Private non-commercial systems such as Duke's must not be placed at a disadvantage just because spectrum auctions appear an easy means to raise federal revenues. The services that such systems provide are too valuable to the public to suffer any interruptions.

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To: The Commission

SUPPLEMENTAL COMMENTS
OF
DUKE POWER COMPANY

Duke Power Company ("Duke"), by its attorneys, hereby respectfully submits these Supplemental Comments in response to the request of the Commission in the above-captioned proceeding.[1] As licensee of a wide area private 800 MHz system, Duke is vitally concerned with the Commission's ultimate decision in this matter since it will affect Duke's "lifeline" telecommunications facilities. Accordingly, Duke appreciates this opportunity to present its views to the Commission.

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1. See Public Notice, Report No. WT 95-23, DA 95-1965 (released September 12, 1995).

I. BACKGROUND AND PRELIMINARY STATEMENT

1. Duke is a major public utility which is certificated by the states of North and South Carolina to provide electric power throughout the Piedmont and Western sections of the Carolinas. Duke is one of the nation's largest public utility companies and is responsible for providing electric power to approximately 1.8 million customers throughout its 22,000 square mile service area. Duke's power network includes numerous generating stations and substations as well as nuclear power plant facilities. Moreover, Duke has a significant presence throughout its service area as a consumer electronics retailer.

2. Management and operation of Duke's large and geographically diverse service area encompasses numerous functions for which reliable private telecommunications support is required. Among these functions are routine maintenance of the Duke Power system, answering of service calls, service installations and deletions, as well as the handling of emergency situations which may be caused by accidents or natural disasters. At an early date, Duke determined that absolutely reliable, dedicated private telecommunications facilities were an imperative to ensure the safe and efficient delivery of electric power in the Carolinas. For example, when storms or accidents cause the occasional downing of a power line, time is of the essence in getting crews to the site to isolate the line from the public in order to avoid the possibility of injury or worse, as well as to promptly effect repairs and restore electric service. While such incidents fortunately are comparatively uncommon, absolute reliability in telecommunications dispatch services is essential at such times, and despite the costs involved, Duke became convinced at an early date

of its need for a private internal telecommunications system. Accordingly, in the mid-1950's Duke applied for and was awarded licenses to construct a private land mobile radio system which operated on low-band frequencies. This system was expanded in the 1970's to quadruple its capacity. Continued growth in Duke's operations as well as population shifts which dramatically increased its customer base, soon rendered this system obsolete. Duke subsequently applied for and received authorization to construct a wide area 800 MHz private land mobile radio system to provide basic telecommunications services throughout the entire Duke service area. This system has now been successfully constructed and operated for several years. Duke has invested millions of dollars in this quite complex system which encompasses over 41 base and/or mobile relay sites, 4300 mobile radios, 850 portable radios, 255 control stations and three main dispatch console systems. In the aggregate, the Duke System is licensed for operation on 63 channel pairs. The system provides the sole communication capability to practically all of Duke's operating divisions including: field services, engineering, operations, construction, power delivery and customer and appliance service personnel. A significant portion of the traffic routinely carried over the Duke System includes service restoration, safety and field personnel dispatch activity.

3. Upon review of the Commission's recently announced "finalized" proposals for 800 MHz spectrum auctioning, Duke was alarmed to learn that 29 of the 63 channel pairs currently authorized to Duke are contained within the "upper 200" Special Mobile Radio ("SMR") channel block which the Commission apparently will schedule for wide area license auctions, with concomitant mandatory migration for incumbent licensees. Duke is greatly concerned by these developments and asks that the Commission take steps to ensure that Duke's 800 MHz

telecommunications facilities will not be decimated by the loss of spectrum which is vital to the continued efficient and safe operation of the Duke Power system.

II. COMMENTS

4. Duke understands that the Commission is under a Congressional directive to establish a regulatory method by which all Commercial Mobile Radio Service ("CMRS") providers will be regulated in the same manner and will pay for spectrum at auctions where mutually exclusive applications are filed. This directive, however, must not obscure the vital importance of private radio systems. The Commission must make special allowances for Duke's 800 MHz system since Duke does not offer commercial mobile radio services on its system, and maintains its facilities for purely private purposes which serve vital needs of the public. While Duke is cognizant of the Commission's mandate from Congress to treat wide-area commercial SMR systems in a manner equivalent to other CMRS providers[2], Congress has taken particular care to ensure that auctions would not be used as a means of licensing for spectrum employed for private radio systems, and the Commission has recognized this auction exemption.[3] While the 200 channels which the Commission proposes to auction are accessible to commercial entities, these channels have also been accessible to private system licensees. Therefore, some large scale

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2. Omnibus Budget Reconciliation Act of 1993, Pub. L. No. 103-66, Title VI Section 6002(b), 107 Stat. 317, 392 (1993) ("Budget Act").

3. In the Matter of Implementation of Section 309(j) of the Communications Act Competitive Bidding, Second Report and Order, 9 FCC Rcd. 2348, 2352-2353 (1994).

private systems - including Duke's - conduct operations on these channels. Accordingly, Duke believes that any auctioning of spectrum which is, in actuality, "shared private/commercial" would exceed the statutory authority given to the Commission by Congress, insofar as it adversely affects private system operations.

5. Upon its decision to construct a wide area 800 MHz system, Duke's planners and system designers realized that even with efficient frequency reuse, multiple channels would be required to successfully operate the wide area system. Duke therefore requested assistance from the Commission's certified coordinators on spectrum choices which would provide the best channels available in the Carolinas for what, at that time, was an unusually complex and quite extraordinary wide area system. Thus, through no fault of its own, but based on the best frequency choices available at the time, Duke obtained a complement of frequencies which included several in the "upper 200" SMR allotment. Duke believed that its operation upon these channels would be protected by the Commission due in part to the Commission's well settled policy and repeated statements that private systems are of significant importance and may, indeed, be the only viable option for sensitive operations.[4] Duke's system is a classic example of the critical public interest operations for which private spectrum long has been dedicated by the

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4. See generally Allocation of Frequencies in the Bands Above 890 MHz., Report and Order, Docket No. 11866, 27 F.C.C. 359, 413 (1959); see also Amendment of the Commission's Rules Relative to Operations in the Land Mobile Service Between 806-960 MHz, Memorandum Opinion and Order, Docket No. 18262, 51 F.C.C. 2d 945, 966 (1975).

Commission.[5] Accordingly, unless fully suitable replacement spectrum for Duke's operations may be found and made expeditiously available, Duke is adamantly opposed to any mandatory relocation of its system from its present spectrum assignments.

A. Duke Must Not Be Forced From Its Current Spectrum Assignments.

6. Nearly half of the 800 MHz channels now authorized to Duke are in the "upper 200" SMR block. The loss of these frequencies without proper replacements would cripple Duke's telecommunications capabilities as well as its ability to efficiently and safely provide electric service to its customers. Duke therefore urges that the Commission not adopt any procedures which would require Duke to migrate from its current frequencies. The Commission should adopt a policy whereby incumbent private system migration takes place through purely voluntary negotiations between parties pursuant to the rules of the marketplace.

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5. The Commission's allocation of dedicated private spectrum for such operations has been based not only on the heightened reliability which private systems offer over commercial systems in emergencies, but also upon the possible technical inadequacy of commercial mobile radio systems to meet many private licensee's particular needs. Duke provides a case in fact on this point. In an effort to determine whether commercial mobile 800 MHz facilities could adequately to meet its operational needs, Duke became a customer of a commercial wide area SMR operator serving Duke's territory. Duke found the signal coverage afforded by this commercial system inadequate, particularly in several rural areas served by Duke. Duke understands that it may be quite some time before these rural areas are served by the commercial operator due to the lessened commercial prospects of such locations. In addition to regional coverage issues, reliability concerns are raised, since traffic demands during emergencies often render commercial systems inadequately reliable for critical services. As the Duke service area has experienced problems in the past due to the impact of hurricanes, ice storms, accidents and other phenomena, these concerns remain a problem which Duke believes will be difficult for commercial carriers to surmount.

7. Duke's concerns about mandatory relocations are heightened, in that the Commission has tentatively concluded that adequate replacement spectrum may be found using a combination of channels from the 150 "general category" channels or from the "lower 80" SMR channels. Duke has recently reviewed the Commission's data base concerning 800 MHz licensees now authorized in Duke's operational area. This review leaves Duke unconvinced that adequate spectrum may be located from the Commission's proposed sources to replace Duke's loss of channels from the "upper 200" SMR block.[6] Duke understands that the Commission may have every intention of making incumbent licensees "whole" upon migration, but as a practical matter Duke believes this will be impossible under the Commission's current proposal. Duke's belief, based upon its recent review of the Commission's suggested replacement spectrum locations, is that no spectrum resources are currently available from the "lower 80" SMR and "general category" channels to accommodate Duke's needs. Provided however, that adequate spectrum from the "lower 80" SMR and/or "general category" channels (or from other as yet undetermined spectrum sources) could be found to meet Duke's needs, Duke would not oppose migration if the migration transition conditions outlined below are met so that a seamless handoff to acceptable replacement frequencies may be effectuated.

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6. This report is quite lengthy and accordingly is not attached to this Comment filing. However, Duke will be pleased to forward copies of this study to the Commission upon request.

B. Should The Commission Adopt A Policy Featuring Mandatory Relocation Provisions, It Must Ensure The Continued Availability Of Adequate Private Radio Communications Channels For Duke.

8. Based on the foregoing discussion, Duke reasserts that its system is critical to the safe and efficient provision of electric power service to the Carolinas. Major modification of Duke's system will impose a significant operational burden upon Duke and could jeopardize the efficiency of its service to the public. Accordingly, whether or not the Commission auctions spectrum in the "upper 200" SMR block, Duke is opposed to imposition of mandatory relocation procedures upon the Duke system. However, should the Commission move forward with licensing wide area commercial systems through auction procedures, incumbent licensees such as Duke must be "grandfathered" and be given primary licensing rights against the new wide area licensees with regard to interference protection. In sum, new licensees must either locate stations at least 70 miles from the facility of any co-channel incumbent or comply with the Commission's co-channel contour separation standards.[7]

9. The Commission must also ensure flexibility for incumbent system operators to meet changing telecommunications system needs. Due to routine shifts in system coverage needs, replacement of antenna sites and other such unforeseeable events, system modifications are an

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7. See 47 C.F.R. § 90.621 (1994).

occasional necessity. Therefore, incumbent licensee must be allowed to construct "fill-in" or modified stations anywhere within a defined system "protected service contour". By this means, Duke could establish supplemental facilities where needed in order to keep its system efficient and reliable, without creating objectionable interference to other licensees, including new wide area commercial system licensees.

10. Should the Commission feel compelled to impose mandatory migration requirements on incumbent 800 MHz licensees, complex and/or wide area system operators such as Duke should be given adequate time to conduct voluntary negotiations and system redesign, as well as actual system modifications and testing, prior to final migration. For a comprehensive system such as Duke's, it is estimated that a minimum three year total relocation period would be required. While planning and system redesign activities are likely to require considerable time, once final designed changes are established, actual system modifications and testing could be implemented on a more expedited timetable. Duke therefore believes that a minimum two year purely voluntary negotiation period followed by a one year mandatory negotiation period may prove adequate to meet the demand which would be imposed by a wide area system migration project.

11. Additionally, should the Commission adopt mandatory relocation procedures, it must ensure that replacement spectrum is "comparable" in every respect to that which is vacated by the incumbent. Such comparability must include a like bandwidth and capacity; the spectrum must be unencumbered and sharing with any other parties must not be required. Signal

propagation characteristics of replacement spectrum must be generally equivalent to that of current 800 MHz assignments. Moreover, the replacement spectrum must be located in a frequency range which will lend itself to ready usage and implementation with other 800 MHz spectrum which will remain in use with the incumbent's system. Further, the Commission must ensure that any "comparable spectrum" definition adopted include provisions for incumbents to receive spectrum which may easily be integrated throughout their wide area systems. For example, Duke's system reuse plan mandates that replacement of a channel or channels in one region of its system would necessitate retuning of equipment and availability of the new channel throughout the entire Duke system. This complication, coupled with the fact that as many as seven potential new commercial Basic Economic Area ("BEA") licensees could be involved in negotiations with Duke for migration from its present spectrum assignments, requires that the Commission adopt procedures by which such complexities of spectrum replanning are taken into account and accommodated. Appended hereto as the "System Technical Exhibit" is a further explanation of the frequency migration difficulties inherent to Duke's wide area system as well as maps and diagrams which graphically depict the system migration difficulties which could be expected.

12. Duke is also concerned that wide area SMR licensee(s) will attempt to slowly move Duke off its "upper 200" SMR frequencies on a "channel at a time" basis as remote spectrum openings may be discovered. Such piecemeal system change-outs would drain Duke's personnel resources and simply prolong the difficulties encountered in spectrum migration. Duke therefore asks that the Commission require that wide area licensees be required to negotiate with incumbents for wholesale change-outs where multiple channels are involved. Along these lines, Duke also

believes that it is incumbent upon the Commission to require that migrated licensees make only one move, and that once a new spectrum home is located for an incumbent licensee no subsequent moves be mandated.

13. Further, the costs associated with spectrum migration must be fully compensated by the new licensee. Such compensation must include all costs associated with migration, including but not limited to engineering, planning, movement and/or installation of equipment and, where necessary, construction and property acquisition or initial leases of replacement tower facilities. Additionally, Duke notes that transition activities will create numerous costs which are difficult to calculate and easily place on a ledger. Duke's migration from such a large segment of its current frequency complement would possibly create major disruptions of service, system down time and potential loss of goodwill from its customers, as well as staffing difficulties and overtime costs and the temporary removal of staff from other pressing company projects. While not inclusive, this list entails several of the additional cost factors which Duke must bear in order to make the proposed adjustments in its telecommunications system. Duke therefore believes that the Commission must ensure that all such costs be taken into account, and that Duke be compensated for the costs by the new wide area licensee.

III. CONCLUSION

13. Duke reminds the Commission that the public interest and safety require that private telecommunications systems such as that operated by Duke continue to serve the public

without undue hinderance. Duke believes that no forced relocation of any incumbent 800 MHz private system operator should be required. Nonetheless, should the Commission conclude that no alternative to Duke's eventual system migration is possible, steps must be taken to ensure that the transition from current spectrum assignments is orderly and that basic public needs are not compromised. Additionally, the Commission must ensure that the steep financial burdens which would accompany such a migration must not be assumed by private licensees -- or in the case of Duke, its ratepayers -- for systems which operate in the public interest on a not-for-profit basis, simply for the sake of raising federal revenues via auctions.

WHEREFORE, THE PREMISES CONSIDERED, Duke Power Company respectfully requests that the Federal Communications Commission act in this proceeding in a manner fully consistent with the views expressed herein.

Respectfully submitted,

DUKE POWER COMPANY

By: _____

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By: _____

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Dated: December 6, 1995

SYSTEM TECHNICAL EXHIBIT

Duke Power Company's
800 MHZ Radio System Design Migration Issues

1. Duke Power Company's 800 MHZ radio system was designed so that mobile units can talk on any local radio repeater station in the 22,000 square mile service territory. Repeator station sites were defined and located based on the local geographical service area of the radio users at the time of implementation. The first 30 channels issued to Duke Power in 1984 were six total "five-channel blocks" in the what is now known as the "upper 200 SMR" channels. These channels were installed for use in the most urban areas in the Duke system as shown on the Exhibits. Any modifications that are made to any single site will require a total reprogramming of all mobile units in Duke's fleet.

2. Due to the equipment limitations inherent to the mobile radios now used in the system channel positions on the radios are reused. All mobile equipment will need to be replaced or upgraded to accommodate frequency migration.

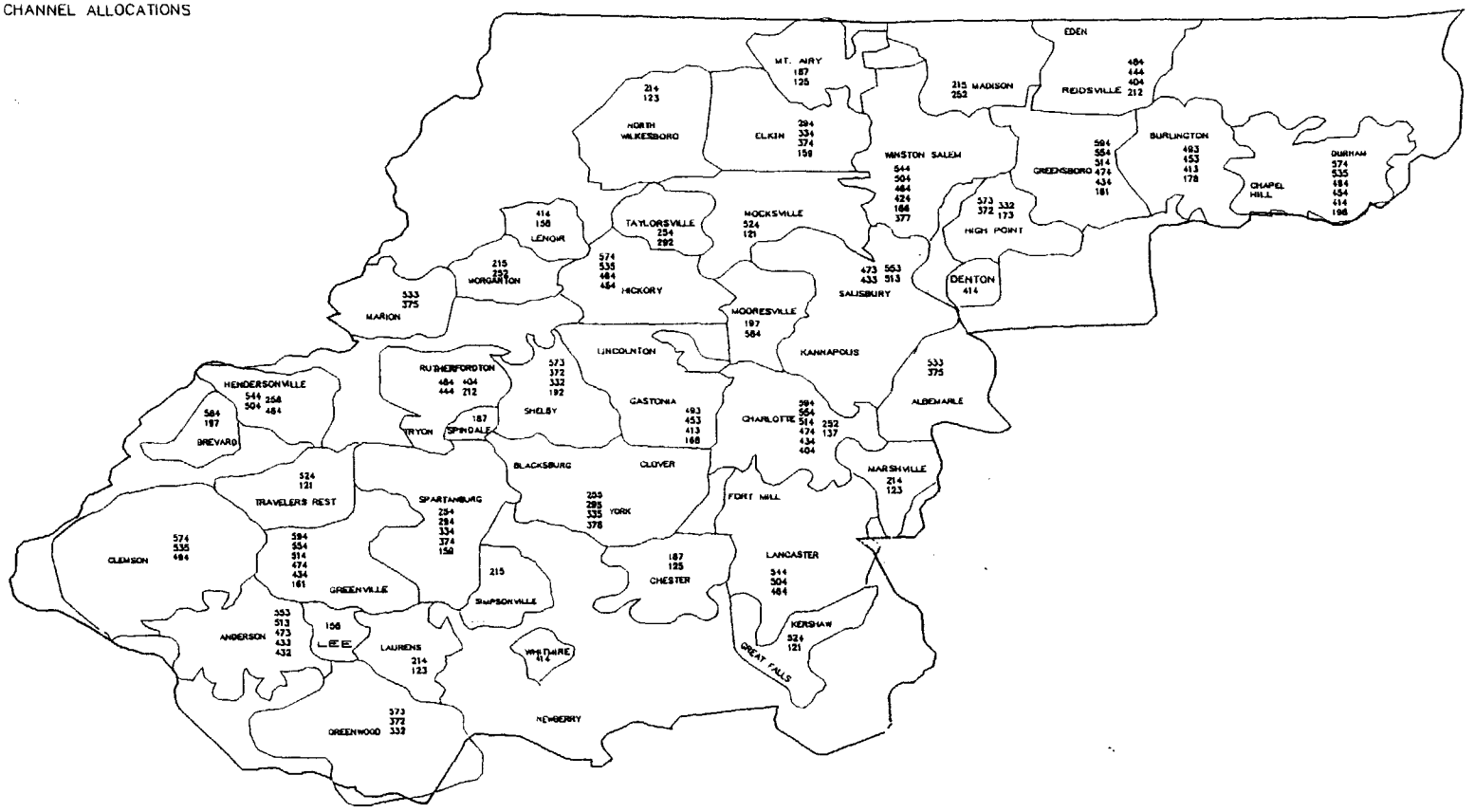
3. All radio repeater sites are dispatched and controlled from central electronic console equipment located in Charlotte, NC. This equipment will require upgrades to accommodate frequency migration.

4. Duke Power is faced with dealing with up to seven different BEA auction winners as illustrated on Exhibit B. The system cannot be modified in piece-meal fashion. An upgrade on a single site must be treated as an entire system modification.

DUKE POWER COMPANY
800MHz RADIO SYSTEM

EXHIBIT A

FCC CHANNEL ALLOCATIONS

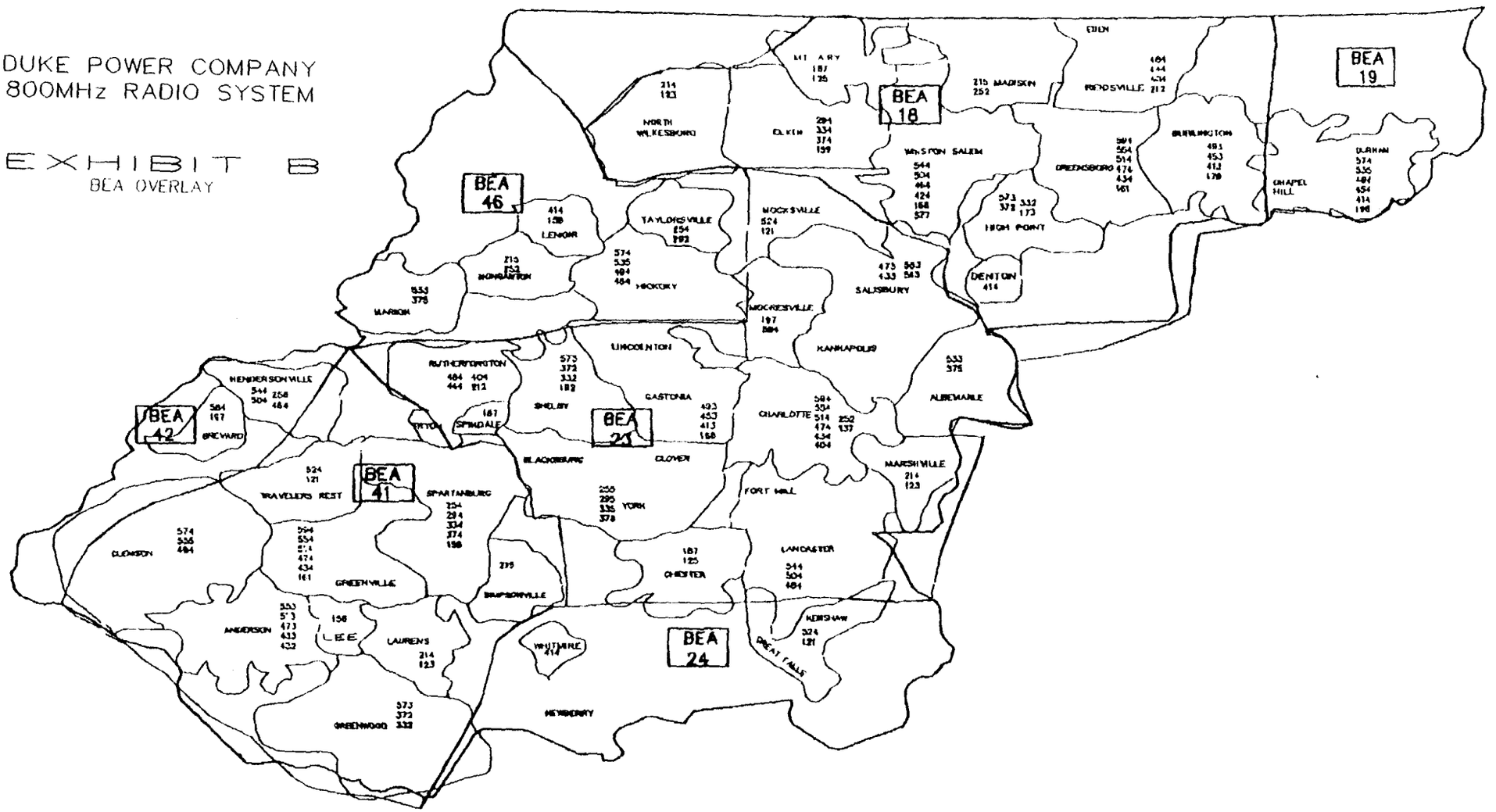


12/1/95

FCCALLOC

DUKE POWER COMPANY
800MHz RADIO SYSTEM

EXHIBIT B
BEA OVERLAY

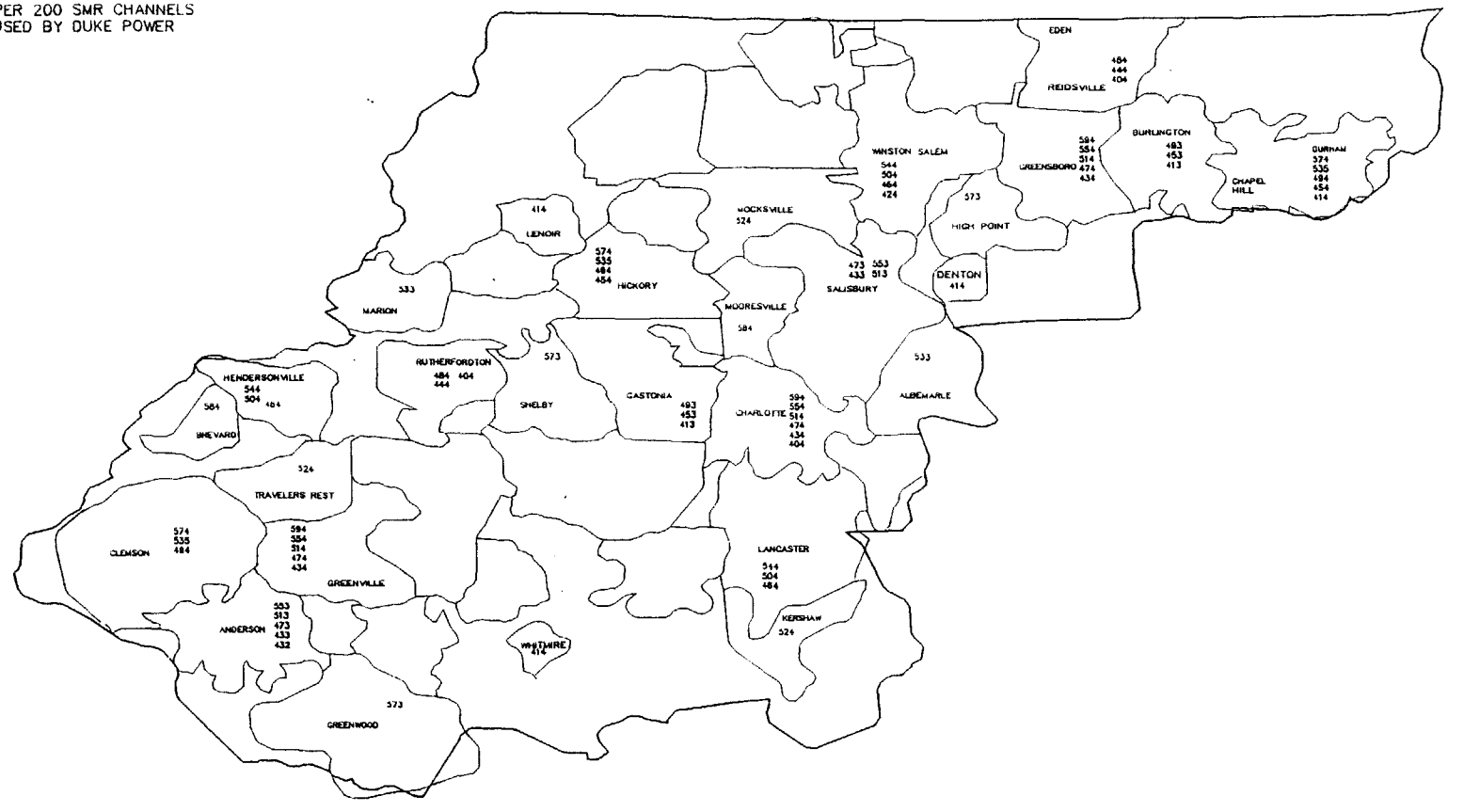


2/1/95

DUKE POWER COMPANY
800MHz RADIO SYSTEM

EXHIBIT C

UPPER 200 SMR CHANNELS
USED BY DUKE POWER



12/1/95

FCCALLOC

CERTIFICATE OF SERVICE

I, Vanessa N. Duffy, do hereby certify that I have, this 6th day of December, 1995, caused to be sent by hand delivery copies of the foregoing "Supplemental Comments of the Duke Power Company" to the following:

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